Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1. (Currently Amended) An image display device, comprising:

a pixel array constituted by a plurality of pixels for displaying an image;

a data signal line drive circuit for supplying a video signal to the pixel array;

a scan signal line drive circuit for controlling writing of the video signal to the plurality of pixels;

a timing circuit for supplying a timing signal to the data signal line drive circuit and the scan signal line drive circuit; and

a video signal processing circuit for supplying the video signal to the data signal line drive circuit,

wherein:

a part or entirety of either or both of the data signal line drive circuit and the scan signal line drive circuit is provided in plurality, the part including a voltage select-supplying section for selecting and supplying voltages each of which is supplied during one horizontal period to each data signal line, ~~for one data signal line~~ so as to realize mutually different display configurations.

2. (Currently Amended) The image display device as defined in ~~claim 1~~ claims 1 or 122, wherein:

only one of the parts and entireties of the drive circuit(s) operates at any given time.

3. (Currently Amended) The image display device as defined in ~~claim 1~~ claims 1 or 122, wherein:

the same part(s) and entirety(ies) of the drive circuit(s) is(are) driven throughout one or more frame periods.

4. (Currently Amended) The image display device as defined in ~~claim 1~~ claim 1 or 122, wherein:

two or more of the parts and entireties of the drive circuit(s) are switchably driven in one frame period.

5. (Currently Amended) The image display device as defined in ~~claim 1~~ claims 1 or 122, wherein:

at least two of the parts and entireties of the drive circuit(s) write image data in respective areas on a screen.

6. (Currently Amended) The image display device as defined in ~~claim 1~~ claims 1 or 122, wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least two of the parts and entireties of the data signal line drive circuit write image data in one partial or whole area on a screen in one frame period.

7. (ORIGINAL) The image display device as defined in claim 6,

wherein:

the at least two of the parts and entireties of the data signal line drive circuit operate simultaneously.

8. (ORIGINAL) The image display device as defined in claim 6,

wherein:

at least one of the parts and entireties of the data signal line drive circuit writes image data overlapping an image written by another part or entirety of the data signal line drive circuit in one frame period.

9. (ORIGINAL) The image display device as defined in claim 8,

wherein:

at least one of the parts and entireties of the data signal line drive circuit writes an image overlapping another image throughout one or more entire horizontal scan periods.

10. (ORIGINAL) The image display device as defined in claim 8,

wherein:

at least one of the parts and entireties of the data signal line drive circuit writes an image overlapping another image only in a part of one or more entire horizontal scan periods.

11. (Currently Amended) The image display device as defined in ~~claim 1~~ claims 1 or 122, wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes image data in a blanking period of each horizontal scan period.

12. (Currently Amended) The image display device as defined in ~~claim 1~~ claims 1 or 122, wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes image data with a predetermined delay from another part or entirety of the data signal line drive circuit.

13. (Currently Amended) The image display device as defined in ~~claim 1~~ claims 1 or 122, wherein:

the parts and entireties of the drive circuit(s) are located opposing one another across the pixel array.

14. (Withdrawn) The image display device as defined in claim 1, wherein:

the parts and entireties of the drive circuit(s) are located on one side of the pixel array.

15. (Withdrawn) The image display device as defined in claim 1,

wherein:

the parts and entireties of the drive circuit(s) share a common circuit.

16. (Withdrawn) The image display device as defined in claim 1,

wherein:

an externally inputted signal controls which of the parts and entireties of the drive circuit(s) will be driven.

17. (Withdrawn) The image display device as defined in claim 1,

wherein:

one of the mutually different display configurations is selected according to a kind of input display data.

18. (Withdrawn) The image display device as defined in claim 1,

wherein:

one of the mutually different display configurations is selected according to an environmental condition.

19. (Withdrawn) The image display device as defined in claim 1,

wherein:

the video signal processing circuit converts the input video signal to a plurality of kinds of display formats as the mutually different display configurations.

20. (Withdrawn) The image display device as defined in claim 1,

wherein:

the timing circuit converts the input timing signal to a signal compatible with a display format as one of the mutually different display configurations.

21. (Withdrawn) The image display device as defined in claim 1,

wherein:

the timing circuit includes timing signal supply destination switching means for, upon reception of an external control signal, switching destinations to which the timing signal is to be supplied.

22. (Withdrawn) The image display device as defined in claim 1,

wherein:

the video signal processing circuit includes video signal supply destination switching means for, upon reception of an external control signal, switching destinations to which the video signal is to be supplied.

23. (Withdrawn) The image display device as defined in claim 1, further comprising:

detection means for detecting an environmental condition; and

display configuration switching means for switching the display configurations according to a signal from the detection means.

24. (Withdrawn) The image display device as defined in claim 1, further comprising:

video kind identification means for identifying a kind of the input video signal; and

display configuration switching means for switching the display configurations according to a signal from the video kind identification means.

25. (Withdrawn) The image display device as defined in claim 1,

wherein:

each of the parts and entireties of the drive circuit(s) has its own power supply terminal and input terminal.

26. (Withdrawn) The image display device as defined in claim 1,

wherein:

the parts and entireties of the drive circuit(s) share a partially common power supply terminal and input terminal.

27. (Withdrawn) The image display device as defined in claim 1,

wherein:

none of the parts and entireties of the drive circuit(s) is fed with electric power when not operating.

28. (Withdrawn) The image display device as defined in claim 1, further comprising:

means for electrically isolating some of the parts and entireties of the drive circuit(s) that are not being involved in producing a display from the pixel array.

29. (Withdrawn) The image display device as defined in claim 1,

wherein:

one of a plurality of display formats as the mutually different display configurations produces a relatively high quality display, whilst the other produces a relatively low quality display.

30. (Withdrawn) The image display device as defined in claim 1,

wherein:

one of a plurality of display formats as the mutually different display configurations consumes relatively little power, whilst the other consumes a relatively great power.

31. (Withdrawn) The image display device as defined in claim 29,

wherein:

one of the plurality of display formats produces a relatively high resolution, whilst the other produces a relatively low resolution.

32. (Withdrawn) The image display device as defined in claim 30,

wherein:

one of the plurality of display formats produces a relatively high resolution, whilst the other produces a relatively low resolution.

33. (Withdrawn) The image display device as defined in claim 29,

wherein:

one of the plurality of display formats is a color display, whilst the other is a black-and-white display.

34. (Withdrawn) The image display device as defined in claim 30,

wherein:

one of the plurality of display formats is a color display, whilst the other is a black-and-white display.

35. (Withdrawn) The image display device as defined in claim 31,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to a plurality of data signal lines.

36. (Withdrawn) The image display device as defined in claim 32,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to a plurality of data signal lines.

37. (Withdrawn) The image display device as defined in claim 33,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to a plurality of data signal lines.

38. (Withdrawn) The image display device as defined in claim 34,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to a plurality of data signal lines.

39. (Withdrawn) The image display device as defined in claim 31,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to data signal lines corresponding to some of the plurality of pixels of the same color, those some pixels being horizontally adjacent to each other with or without an intervening pixel of a different color.

40. (Withdrawn) The image display device as defined in claim 32,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to data signal lines corresponding to some of the plurality of pixels of the same color, those some pixels being horizontally adjacent to each other with or without an intervening pixel of a different color.

41. (Withdrawn) The image display device as defined in claim 33,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to data signal lines corresponding to some of the plurality of pixels of the same color, those some pixels being horizontally adjacent to each other with or without an intervening pixel of a different color.

42. (Withdrawn) The image display device as defined in claim 34,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to data signal lines corresponding to some of the plurality of pixels of the same color, those some pixels being horizontally adjacent to each other with or without an intervening pixel of a different color.

43. (Withdrawn) The image display device as defined in claim 33,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to data signal lines corresponding to some of the plurality of pixels, those some pixels being horizontally adjacent to each other and of three different colors.

44. (Withdrawn) The image display device as defined in claim 34,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

at least one of the parts and entireties of the data signal line drive circuit writes identical image data to data signal lines corresponding to some of the plurality of pixels, those some pixels being horizontally adjacent to each other and of three different colors.

45. (Withdrawn) The image display device as defined in claim 31,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at an identical timing; and

the data signal line drive circuit outputs image data which is held by data signal lines in each scan period.

46. (Withdrawn) The image display device as defined in claim 32,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at different timings; and

the data signal line drive circuit outputs image data which is held by data signal lines in each scan period.

47. (Withdrawn) The image display device as defined in claim 31,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at different timings; and

the data signal line drive circuit outputs identical image data in each scan period.

48. (Withdrawn) The image display device as defined in claim 32,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at different timings; and

the data signal line drive circuit outputs identical image data in each scan period.

49. (Withdrawn) The image display device as defined in claim 31,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at different timings; and

the data signal line drive circuit outputs image data which is held by data signal lines in a period including a plurality of scan periods.

50. (Withdrawn) The image display device as defined in claim 32,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at different timings; and

the data signal line drive circuit outputs image data which is held by data signal lines in a period including a plurality of scan periods.

51. (Withdrawn) The image display device as defined in claim 31,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at different timings; and

the data signal line drive circuit outputs image data representing an identical halftone, but different polarities, in each scan period.

52. (Withdrawn) The image display device as defined in claim 32,

wherein:

in one of the plurality of display formats of a relatively low resolution,

a scan signal is written to a plurality of successive scan signal lines at different timings; and

the data signal line drive circuit outputs image data representing an identical halftone, but different polarities, in each scan period.

53. (Withdrawn) The image display device as defined in claim 31,

wherein:

in one of the plurality of display formats of a relatively low resolution,

image data is written to data signal lines without changing a polarity thereof throughout one frame period.

54. (Withdrawn) The image display device as defined in claim 32,

wherein:

in one of the plurality of display formats of a relatively low resolution,

image data is written to data signal lines without changing a polarity thereof throughout one frame period.

55. (Withdrawn) The image display device as defined in claim 29,

wherein:

one of the plurality of display formats displays a relatively great number of halftones, whilst the other displays a relatively small number of halftones.

56. (Withdrawn) The image display device as defined in claim 30,

wherein:

one of the plurality of display formats displays a relatively great number of halftones, whilst the other displays a relatively small number of halftones.

57. (Withdrawn) The image display device as defined in claim 29,

wherein:

one of the plurality of display formats is compatible with a halftone display, whilst the other is compatible with a binary display.

58. (Withdrawn) The image display device as defined in claim 30,

wherein:

one of the plurality of display formats is compatible with a halftone display, whilst the other is compatible with a binary display.

59. (Withdrawn) The image display device as defined in claim 55,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include a reference voltage selection circuit and an intermediate potential generation circuit,

wherein:

when relatively a few halftones are displayed, the reference voltage selection circuit operates, but the intermediate potential generation circuit does not operate; and

when relatively many halftones are displayed, both the reference voltage selection circuit and the intermediate potential generation circuit operate.

60. (Withdrawn) The image display device as defined in claim 56,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include a reference voltage selection circuit and an intermediate potential generation circuit,

wherein:

when relatively a few halftones are displayed, the reference voltage selection circuit operates, but the intermediate potential generation circuit does not operate; and

when relatively many halftones are displayed, both the reference voltage selection circuit and the intermediate potential generation circuit operate.

61. (Withdrawn) The image display device as defined in claim 57,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include a reference voltage selection circuit and an intermediate potential generation circuit,

wherein:

when relatively a few halftones are displayed, the reference voltage selection circuit operates, but the intermediate potential generation circuit does not operate; and

when relatively many halftones are displayed, both the reference voltage selection circuit and the intermediate potential generation circuit operate.

62. (Withdrawn) The image display device as defined in claim 58,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include a reference voltage selection circuit and an intermediate potential generation circuit,

wherein:

when relatively a few halftones are displayed, the reference voltage selection circuit operates, but the intermediate potential generation circuit does not operate; and

when relatively many halftones are displayed, both the reference voltage selection circuit and the intermediate potential generation circuit operate.

63. (Withdrawn) The image display device as defined in claim 55,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include an amplifier circuit,

wherein

when relatively a few halftones are displayed, the amplifier circuit does not operate; and

when relatively many halftones are displayed, the amplifier circuit operates.

64. (Withdrawn) The image display device as defined in claim 56,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include an amplifier circuit,

wherein

when relatively a few halftones are displayed, the amplifier circuit does not operate; and

when relatively many halftones are displayed, the amplifier circuit operates.

65. (Withdrawn) The image display device as defined in claim 57,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include an amplifier circuit,

wherein

when relatively a few halftones are displayed, the amplifier circuit does not operate; and

when relatively many halftones are displayed, the amplifier circuit operates.

66. (Withdrawn) The image display device as defined in claim 58,

wherein:

a part or entirety of the data signal line drive circuit is provided in plurality; and

the parts and entireties of the data signal line drive circuit include an amplifier circuit,

wherein

when relatively a few halftones are displayed, the amplifier circuit does not operate; and

when relatively many halftones are displayed, the amplifier circuit operates.

67. (Withdrawn) The image display device as defined in claim 29,

wherein:

the input video signal is analog in one of the plurality of display formats and digital in the other.

68. (Withdrawn) The image display device as defined in claim 30,

wherein:

the input video signal is analog in one of the plurality of display formats and digital in the other.

69. (Withdrawn) The image display device as defined in claim 29,

wherein:

the input video signal carries image data in one of the plurality of display formats and text data in the other.

70. (Withdrawn) The image display device as defined in claim 30,

wherein:

the input video signal carries image data in one of the plurality of display formats and text data in the other.

71. (Withdrawn) The image display device as defined in claim 29,

wherein:

the input video signal carries natural image data in one of the plurality of display formats and graphics data in the other.

72. (Withdrawn) The image display device as defined in claim 30,

wherein:

the input video signal carries natural image data in one of the plurality of display formats and graphics data in the other.

73. (Withdrawn) The image display device as defined in claim 29,

wherein:

one of a plurality of display modes as the mutually different display configurations is a transmission display mode, whilst the other is a reflection display mode.

74. (Withdrawn) The image display device as defined in claim 50,

wherein:

one of a plurality of display modes as the mutually different display configurations is a transmission display mode, whilst the other is a reflection display mode.

75. (Withdrawn) The image display device as defined in claim 1,

wherein:

none of the parts and entireties of the drive circuit(s) writes image data in at least a part of a display area.

76. (Withdrawn) The image display device as defined in claim 75,

wherein:

none of the parts and entireties of the drive circuit(s) writes image data in a part of a display area by controlling outputs from the parts and entireties of the drive circuit(s) based on a signal that represents drive timings of the signal lines.

77. (Withdrawn) The image display device as defined in claim 75,

wherein:

none of the parts and entireties of the drive circuit(s) writes image data in a part of a display area by controlling outputs from the parts and entireties of the drive circuit(s) based on a reset signal causing the parts and entireties of the drive circuit(s) to stop scanning.

78. (Withdrawn) The image display device as defined in claim 75,

wherein:

none of the parts and entireties of the drive circuit(s) writes image data in a part of a display area by inputting a start signal from an intermediate stage of a scan circuit included in the parts and entireties of the drive circuit(s), the start signal causing the parts and entireties of the drive circuit(s) to start scanning.

79. (Withdrawn) The image display device as defined in claim 1,

wherein:

the parts and entireties of the drive circuit(s) are formed on the same substrate as are the pixels.

80. (Withdrawn) The image display device as defined in claim 79,

wherein:

the parts and entireties of the drive circuit(s) include a polycrystalline silicon thin transistor as an active element.

81. (Withdrawn) The image display device as defined in claim 80,

wherein:

the active element is formed on a glass substrate by a process at or below 600 °C.

82. (Canceled)
83. (Canceled)
84. (Canceled)
85. (Canceled)
86. (Canceled)

87. (Currently Amended) An electronic apparatus including an image display device as an output device,

the image display device comprising:

a pixel array constituted by a plurality of pixels for displaying an image;

a data signal line drive circuit for supplying a video signal to the pixel array;

a scan signal line drive circuit for controlling writing of the video signal to the plurality of pixels;

a timing circuit for supplying a timing signal to the data signal line drive circuit and the scan signal line drive circuit; and

a video signal processing circuit for supplying the video signal to the data signal line drive circuit,

wherein:

a part or entirety of either or both of the data signal line drive circuit and the scan signal line drive circuit is provided in plurality, the part including a voltage select-supplying section for selecting and supplying voltages each of which is supplied during one horizontal period to each data signal line, so as to realize mutually different display configurations.

88. (Currently Amended) The electronic apparatus as defined in ~~claim 87~~ claims 87 or 123,

wherein:

the electronic apparatus switches between display modes or display formats according to whether the electronic apparatus is driven by an external power source or by an internal battery.

89. (Currently Amended) The electronic apparatus as defined in ~~claim 87~~ claims 87 or 123, wherein:

the electronic apparatus switches between display modes or display formats according to whether the electronic apparatus is standing by or is operating.

90. (Currently Amended) The electronic apparatus as defined in ~~claim 87~~ claims 87 or 123, wherein:

the electronic apparatus switches between display modes or display formats according to ambient brightness when used.

Claims 91-117 (Cancel)

118. (Currently Amended) The image display device as defined in ~~claim 117~~ claims 124 or 125, wherein only one of the plurality of drive circuit portions operates at any given time.

119. (Currently Amended) The image display device as defined in ~~claim 117~~ claims 124 or 125, wherein:

~~the plurality of drive circuit portions are provided for the data signal line drive circuit; and~~

at least one of the plurality of drive circuit portions writes image data overlapping an image written by another of the plurality of drive circuit portions in one frame period.

120. (Currently Amended) The image display device as defined in ~~claim 117~~ claims 124 or 125, wherein each of the plurality of drive circuit portions operate simultaneously.

121. (Currently Amended) The image display device as defined in ~~claim 117~~ claims 123 or 125, wherein the plurality of drive circuit portions are located opposing one another across the pixel array.

122. (New) An image display device, comprising:

a pixel array constituted by a plurality of pixels for displaying an image;

a data signal line drive circuit for supplying a video signal to the pixel array;

a scan signal line drive circuit for controlling writing of the video signal to the plurality of pixels;

a timing circuit for supplying a timing signal to the data signal line drive circuit and the scan signal line drive circuit; and

a video signal processing circuit for supplying the video signal to the data signal line drive circuit,

wherein:

a part or entirety of the scan signal line drive circuit is provided in plurality, the part including a voltage select-supplying section for selecting and supplying voltages each of which is to be supplied

during one vertical period to each scan signal line, so as to realize mutually different display configurations.

123. (New) An electronic apparatus including an image display device as an output device, the image display device comprising:

a pixel array constituted by a plurality of pixels for displaying an image;

a data signal line drive circuit for supplying a video signal to the pixel array;

a scan signal line drive circuit for controlling writing of the video signal to the plurality of pixels;

a timing circuit for supplying a timing signal to the data signal line drive circuit and the scan signal line drive circuit; and

a video signal processing circuit for supplying the video signal to the data signal line drive circuit,

wherein:

a part or entirety of the scan signal line drive circuit is provided in plurality, the part including a voltage select-supplying section for selecting and supplying voltages each of which is to be supplied during one vertical period to each scan signal line, so as to realize mutually different display configurations.

124. (New) The image display device as defined in claim 1, wherein:

the data signal line drive circuit is configured and arranged so as to include a plurality of drive circuit portions; and

each of the plurality of drive circuit portions are configured and arranged so each drive circuit realizes a display configuration that is different each of the other of the plurality drive circuit portions.

125. (New) The image display device as defined in claim 122, wherein:

the scan signal line drive circuit is configured and arranged so as to include a plurality of drive circuit portions; and

each of the plurality of drive circuit portions arc configured and arranged so each drive circuit realizes a display configuration that is different each of the other of the plurality drive circuit portions.